

SAFETY DEVICES

Harris safety devices help prevent:

- ▶ The entry of air or oxygen into the distribution line or single cylinders
- ▶ Flashback which is the rapid propagation of flame down the hose
- ▶ Further gas flow in the case of burnback



1. Security against the reverse flow of gas

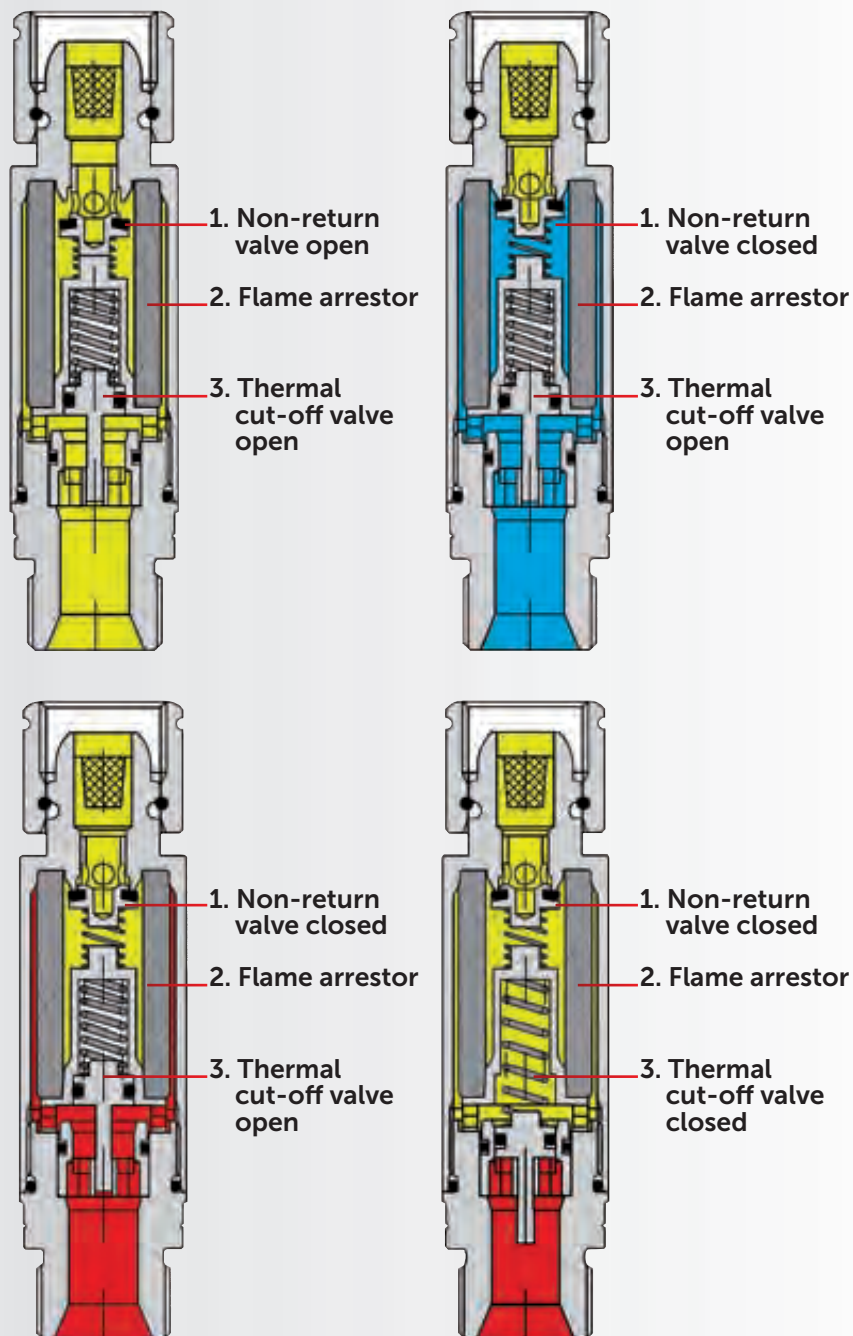
- ▶ The gas non-return valve prevents leakage or the sudden return of air or oxygen in the distribution line or single cylinders

2. Stops Flashbacks

- ▶ A sintered stainless steel flame arrestor prevents flashback from the gas outlet side and cools the flame down to below the ignition temperature, so that the gas cannot re-ignite on the inlet side.

3. Prevent Burnbacks

- ▶ The temperature regulated thermal cut-off valve consists of a spring-loaded valve, which is held in the open position by a soldered element. - In the case of excessive temperatures in the safety device due to flashbacks or burnbacks, the valve closes automatically and cuts off the gas flow and stops burnback



Flashback Arrestors

- ▶ Prevent reverse flow of gases with built-in check valve
- ▶ Extinguish flashback fire with sintered metal filter
- ▶ Thermal cut-off which positively shuts off the gas in case of hose fire, burn or repeated flashbacks (only T version)
- ▶ Pressure operated cut-off which positively shuts off the gas when pressure exceeds (only 3T version)



Regulator type



188- (L & R)



188-2 (L & R)



188-T (L & R)



188-3T (LGB & RGB)



188- TT (L6 & R6)

PART NO.	FUEL GAS	MAX FLOW l/h	MAX PRESSURE (bar) *				INLET THREAD	OUTLET THREAD
			OX	AC	LPG	H ₂		
188-L	Fuel gas	30.000	-	1.5	5	3.5	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH
188-R	Ox	100.000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH
188-LGB	Fuel gas	30.000	-	1.5	5	3.5	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-RGB	Ox	100.000	15	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228
188-2L	Fuel gas	60.000	-	1.5	5	4.0	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH
188-2R	Ox	180.000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH
188-2AL	Fuel gas	60.000	-	1.5	5	4.0	5/8"-18-UNF-LH	5/8"-18-UNF-LH
188-2AR	Ox	180.000	25	-	-	-	5/8"-18-UNF-RH	5/8"-18-UNF-RH
188-2LGB	Fuel gas	60.000	-	1.5	5	4.0	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-2RGB	Ox	180.000	25	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228
188-GL	Fuel gas	30.000	-	1.5	5	3.5	G 1/4"-LH-UNI ISO 228	G 1/4" A-LH-UNI ISO 228
188-GR	Ox	100.000	25	-	-	-	G 1/4"-RH-UNI ISO 228	G 1/4" A-RH-UNI ISO 228
188-FFL	Fuel gas	30.000	-	1.5	5	3.5	M16x1.5-6H-LH	M16x1.5-6g-LH
188-FFR	Ox	100.000	15	-	-	-	M16x1.5-6H-RH	M16x1.5-6g-RH

*1 bar=100 kPa

PART NO.	FUEL GAS	MAX FLOW l/h	MAX PRESSURE (bar) *				INLET THREAD	OUTLET THREAD
			OX	AC	LPG	H ₂		
188-TL	Fuel gas	30.000	-	1.5	5	3.5	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH
188-TR	Ox	100.000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH
188-TAL	Fuel gas	30.000	-	1.5	5	3.5	5/8"-18-UNF-LH	5/8"-18-UNF-LH
188-TAR	Ox	100.000	25	-	-	-	5/8"-18-UNF-RH	5/8"-18-UNF-RH
188-TLGB	Fuel gas	30.000	-	1.5	5	3.5	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-TRGB	Ox	100.000	15	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228
188-2TAL	Fuel gas	60.000	-	1.5	5	4.0	5/8"-18-UNF-LH	5/8"-18-UNF-LH
188-2TAR	Ox	180.000	25	-	-	-	5/8"-18-UNF-RH	5/8"-18-UNF-RH
188-2TL	Fuel gas	60.000	-	1.5	5	4.0	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH
188-2TR	Ox	180.000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH
188-2TLGB	Fuel gas	60.000	-	1.5	5	4.0	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-2TRGB	Ox	180.000	25	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228

*1 bar=100 kPa

PART NO.	FUEL GAS	MAX FLOW l/h	MAX PRESSURE (bar) *				INLET THREAD	OUTLET THREAD
			OX	AC	LPG	H ₂		
188-3TLGB	Fuel gas	60.000	-	1.5	5	4.0	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-3TRGB	Ox	180.000	15	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228

*1 bar=100 kPa

Hose to Hose type

PART NO.	FUEL GAS	MAX FLOW l/h	MAX PRESSURE (bar) *				INLET THREAD	OUTLET THREAD
			OX	AC	LPG	H ₂		
188-TTL6	Fuel gas	20.000	-	1.5	4	4.0	Ø hose 1/4"(6 mm)	Ø hose 1/4"(6 mm)
188-TTR6	Ox	65.000	20	-	-	-	Ø hose 1/4"(6 mm)	Ø hose 1/4"(6 mm)
188-TTL8	Fuel gas	20.000	-	1.5	4	4.0	Ø hose 5/16"(8 mm)	Ø hose 5/16"(8 mm)
188-TTR8	Ox	65.000	20	-	-	-	Ø hose 5/16"(8 mm)	Ø hose 5/16"(8 mm)

*1 bar=100 kPa

Torch Type



188-1G (L6 & R6)



188-GG (L & R)

PART NO.	FUEL GAS	MAX FLOW l/h	MAX PRESSURE (bar) *				INLET THREAD	OUTLET THREAD
			OX	AC	LPG	H ₂		
188-1GBL6	Fuel gas	20.000	-	1.5	4	4.0	Ø hose 1/4"(6 mm)	G 3/8"-LH-UNI ISO 228
188-1GBR6	Ox	65.000	20	-	-	-	Ø hose 1/4"(6 mm)	G 3/8"-RH-UNI ISO 228
188-1GBL8	Fuel gas	20.000	-	1.5	4	4.0	Ø hose 5/16"(8 mm)	G 3/8"-LH-UNI ISO 228
188-1GBR8	Ox	65.000	20	-	-	-	Ø hose 5/16"(8 mm)	G 3/8"-RH-UNI ISO 228
188-1GL6	Fuel gas	20.000	-	1.5	4	4.0	Ø hose 1/4"(6 mm)	G 1/4"-LH-UNI ISO 228
188-1GR6	Ox	65.000	20	-	-	-	Ø hose 1/4"(6 mm)	G 1/4"-RH-UNI ISO 228
188-1L6	Fuel gas	20.000	-	1.5	4	4.0	Ø hose 1/4"(6 mm)	9/16"-18-UNF-2A-LH
188-1R6	Ox	65.000	20	-	-	-	Ø hose 1/4"(6 mm)	9/16"-18-UNF-2A-RH
188-1L8	Fuel gas	20.000	-	1.5	4	4.0	Ø hose 5/16"(8 mm)	9/16"-18-UNF-2A-LH
188-1R8	Ox	65.000	20	-	-	-	Ø hose 5/16"(8 mm)	9/16"-18-UNF-2A-RH
188-GGAL	Fuel gas	20.000	-	1.5	4	4.0	5/8"-18-UNF-LH	5/8"-18-UNF-LH
188-GGAR	Ox	65.000	15	-	-	-	5/8"-18-UNF-RH	5/8"-18-UNF-RH
188-GGGBL	Fuel gas	20.000	-	1.5	4	4.0	G 3/8" A-LH-UNI ISO 228	G 3/8"-LH-UNI ISO 228
188-GGGBR	Ox	65.000	15	-	-	-	G 3/8" A-RH-UNI ISO 228	G 3/8"-RH-UNI ISO 228
188-GGGL	Fuel gas	20.000	-	1.5	4	4.0	G 1/4" A-LH-UNI ISO 228	G 1/4"-LH-UNI ISO 228
188-GGGR	Ox	65.000	15	-	-	-	G 1/4" A-RH-UNI ISO 228	G 1/4"-RH-UNI ISO 228
188-GGL	Fuel gas	20.000	-	1.5	4	4.0	9/16"-18-UNF-2A-LH	9/16"-18-UNF-2B-LH
188-GGR	Ox	65.000	15	-	-	-	9/16"-18-UNF-2A-RH	9/16"-18-UNF-2B-RH

*1 bar=100 kPa

Check Valves

- ▶ Torch type
- ▶ Help prevent dangerous reverse flow mixing of gas in the hose
- ▶ Compact light weight design add extra operator safety



88-6CVT (L&R)

PART NO.	FUEL GAS	MAX PRESSURE (bar) *				INLET THREAD	OUTLET THREAD
		OX	AC	LPG	H ₂		
88-6SVL	Fuel gas	-	1.5	5	20	G 1/4" A-LH-UNI ISO 228	G 1/4"-LH-UNI ISO 228
88-6SVR	Ox	20	-	-	-	G 1/4" A-RH-UNI ISO 228	G 1/4"-RH-UNI ISO 228
88-4CVL**	Fuel gas	-	1.5	5	20	9/16"-18-UNF-2A-LH	9/16"-18-UNF-3B-LH
88-4CVR**	Ox	20	-	-	-	9/16"-18-UNF-2A-RH	9/16"-18-UNF-3B-RH
88-6AL	Fuel gas	-	1.5	5	20	.622"-18-UN-2A-LH	9/16"-18-UNF-3B-LH
88-6AL1	Fuel gas	-	1.5	5	20	.622"-18-UN-2A-LH	.622"-18-UN-LH
88-6AR	Ox	20	-	-	-	.622"-18-UN-2A-RH	9/16"-18-UNF-3B-RH
88-6AR1	Ox	20	-	-	-	.622"-18-UN-2A-RH	.622"-18-UN-RH
88-6CTL	Fuel gas	-	1.5	5	20	M16x1.5-6g-LH	M16x1.5-6G-LH
88-6CTR	Ox	20	-	-	-	M16x1.5-6g-RH	M16x1.5-6G-RH
88-6CVTL	Fuel gas	-	1.5	5	20	9/16"-18-UNF-2A-LH	9/16"-18-UNF-2B-LH
88-6CVTR	Ox	20	-	-	-	9/16"-18-UNF-2A-RH	9/16"-18-UNF-2B-RH
88-6FL	Fuel gas	-	1.5	5	20	M16x1.5-6g-LH	9/16"-18-UNF-3B-LH
88-6FR	Ox	20	-	-	-	M16x1.5-6g-RH	9/16"-18-UNF-3B-RH
88-6GBL	Fuel gas	-	1.5	5	20	G 3/8" A-LH-UNI ISO 228	G 3/8"-LH-UNI ISO 228
88-6GBR	Ox	20	-	-	-	G 3/8" A-RH-UNI ISO 228	G 3/8"-RH-UNI ISO 228
88-6GBR1	Ox	20	-	-	-	G 3/8" A-RH-UNI ISO 228	9/16"-18-UNF-3B-RH
88-6GL	Fuel gas	-	1.5	5	20	G 3/8" A-LH-UNI ISO 228	9/16"-18-UNF-3B-LH
88-6GR	Ox	20	-	-	-	G 1/4" A-RH-UNI ISO 228	9/16"-18-UNF-3B-RH

*1 bar=100 kPa **Regulator type

Quick Action Couplings

- ▶ Long lasting stainless steel pin connection
- ▶ Automatic gas cut-off to positively shut off the gas supply when disconnected
- ▶ Durable brass and stainless steel construction



CPL8

CPLGB

QACLGB

QACL8

PART NO.	DESCRIPTION	CONNECTION TYPE	TYPE
CPL6		Hose connection Ø 1/4" (6 mm)	Hose
CPR6			
CPL8		Hose connection Ø 5/16" (8 mm)	Hose
CPR8			
CPL10		Hose connection Ø 3/8" (9,5 mm)	Hose
CPR10			
CPLGB		Threads G 3/8"-LH-UNI ISO 228	Torch
CPRGB			
CPL		Threads 9/16"-18-UNF-2B-LH	Regulator
CPR			
QACL6		Hose connection Ø 1/4" (6 mm)	Hose
QACR6			
QACL8		Hose connection Ø 5/16" (8 mm)	Hose
QACR8			
QACL10		Hose connection Ø 3/8" (9,5 mm)	Hose
QACR10			
QACL		Threads 9/16"-18-UNF-2B-LH	Regulator
QACR			
QACLGB		Threads G 3/8"-LH-UNI ISO 228	Regulator
QACRGB			
		Threads G 3/8"-RH-UNI ISO 228	